

Pancreas Transplantation: Personal Factors Associated with Good and Poor Post-Transplant Adaptive Response

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Notable differences in patient adaptation after pancreas transplant cause some to thrive and return to independent living, while others struggle with emotional and social problems. In order to prepare vulnerable individuals to better cope after transplant, we investigated pre-transplant factors associated with post-transplant adaptive capacity.

The pancreas transplant team defined; good adaptive response (GAR) in patients who were responsible, resourceful, and optimistic. Poor adaptive response (PAR) was associated with patients who tended to complain and were emotionally dependent.

METHODS: Experts included 3 nurse coordinators and 3 social workers. A modified Delphi approach was used to achieve consensus on the definition of GAR and PAR. 200 of the last transplanted pancreas recipients were selected if they: received a pancreas transplant for type 1 DM, with, or without a kidney, and survived a minimum of six months post-transplant. The experts classified cases into GAR and PAR, contextualized by confidence. We completed a chart abstraction of all 200 cases using pre-transplant data and the extracted variables were regressed on the 54 top weighted GAR cases and the top 40 weighted PAR cases.

RESULTS: In the final model, past smoker, currently on disability, simultaneous pancreas and kidney (SPK), and less than high school education significantly predicted probability of having a PAR ($p < 0.05$). The model was a well-fitting model with a Hosmer and Lemeshow goodness of fit test of ($p = 0.8250 < 0.05$). Given the lack of inclusion of any of the predicted social variables for PAR patients we looked at predictors of GAR. The goodness of fitting model ($p = 0.6294 < 0.05$). In addition to pancreas after kidney (PAK) having an odds ratio of 10.39, past smoker was 10.99 and current disability was 5.8.

Discussion: The association of PAK with GAR and SPK with PAR suggests a possible effect from prior experience with transplant aiding in coping afterwards. Our findings support the need for a prospective study of coping with pancreas transplant and points to more intensive pre-transplant preparation of recipients, particularly those with lesser education.

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